1/9

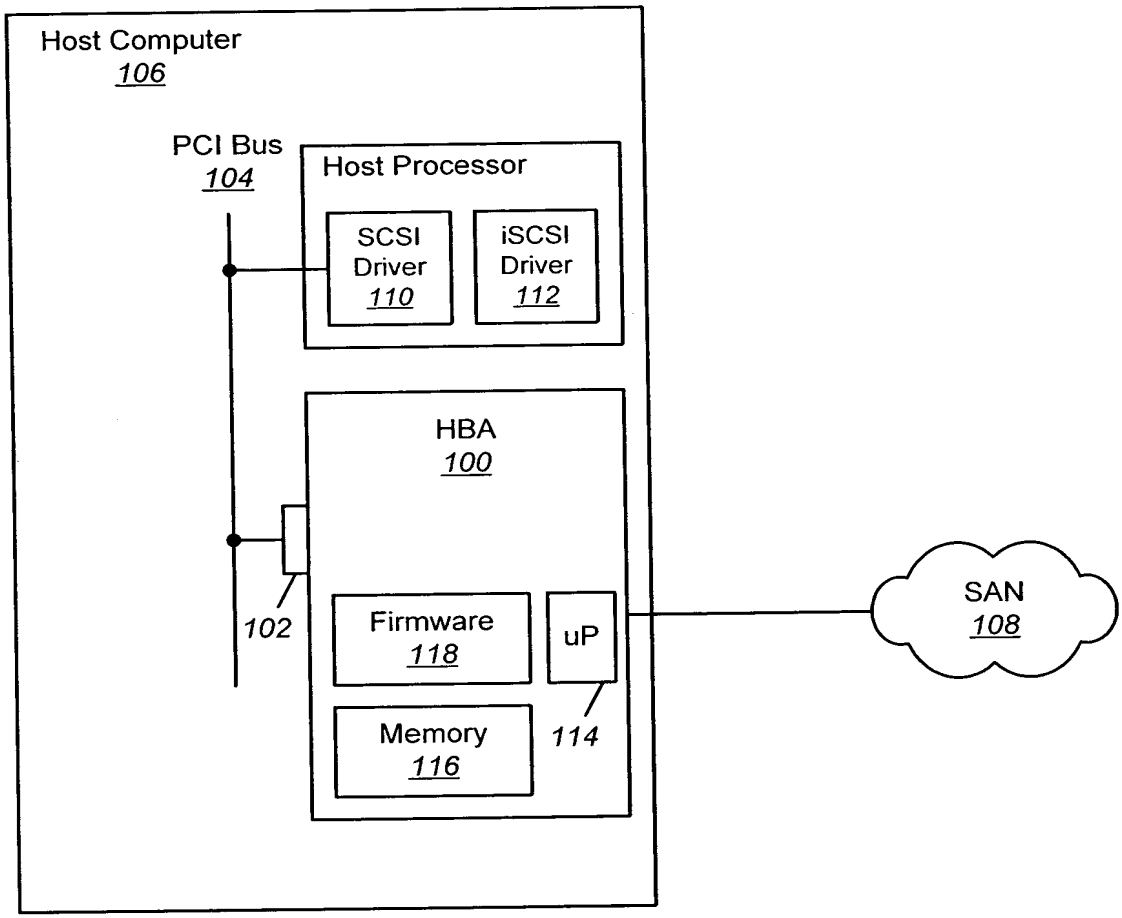
Host Computer
106
PCI Bus
104
Host Processor
SCSI Driver
110
iSCSI Driver
112
HBA
100
102
Firmware
118
uP
114
Memory
116
SAN
108

FIG. 1

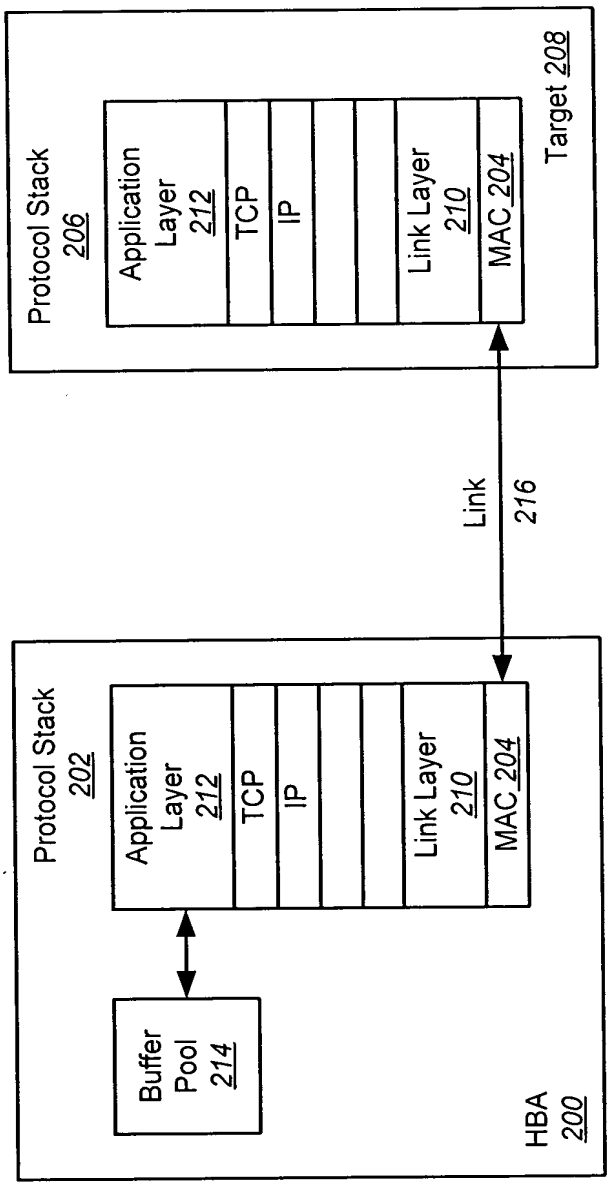
Protocol Stack
206
Application Layer
212
TCP
IP
Link Layer
210
MAC
204
Target
208
Link
216
Protocol Stack
202
Application Layer
212
TCP
IP
Link Layer
210
MAC
204
Buffer Pool
214
HBA
200

FIG. 2

3/9

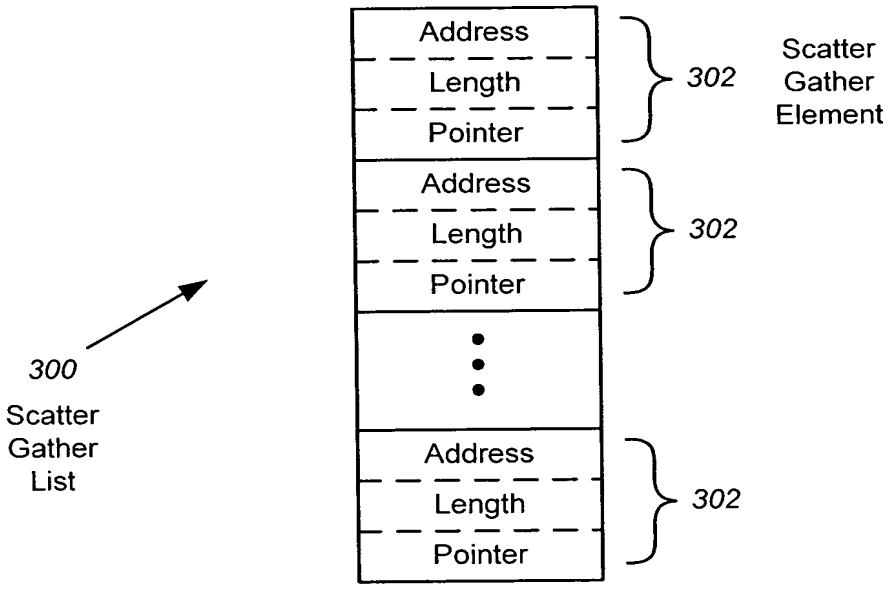
Address
Length
Pointer
302
Scatter
Gather
Element
Address
Length
Pointer
302
Address
Length
Pointer
302
300
Scatter
Gather
List

FIG. 3

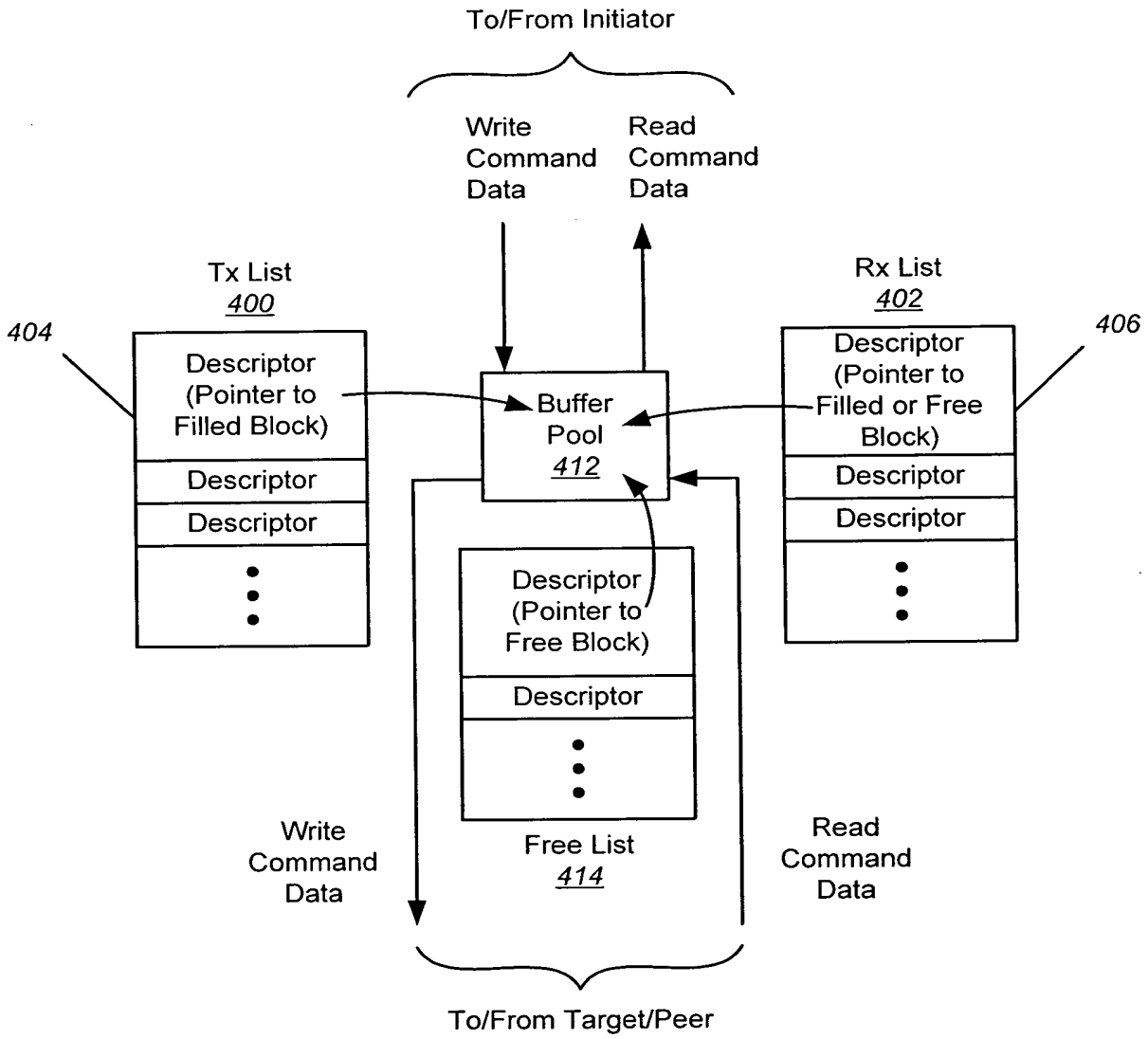
To/From Initiator
Write Command Data
Read Command Data
Tx List
400
404
Descriptor (Pointer to Filled Block)
Descriptor
Descriptor
Buffer Pool
412
Rx List
402
406
Descriptor (Pointer to Filled or Free Block)
Descriptor
Descriptor
Descriptor (Pointer to Free Block)
Descriptor
Free List
414
Write Command Data
Read Command Data
To/From Target/Peer

FIG. 4

5/9

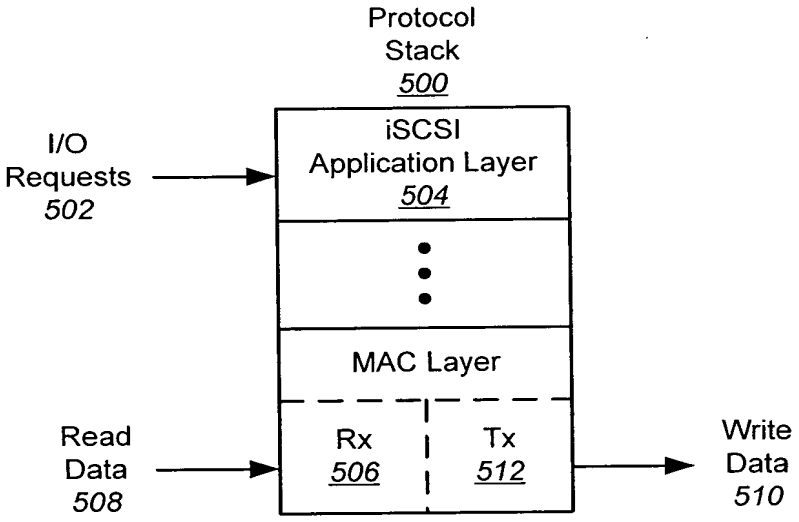
Protocol
Stack
500
I/O
Requests
502
iSCSI
Application Layer
504
MAC Layer
Read
Data
508
Rx
506
Tx
512
Write
Data
510

FIG. 5

6/9

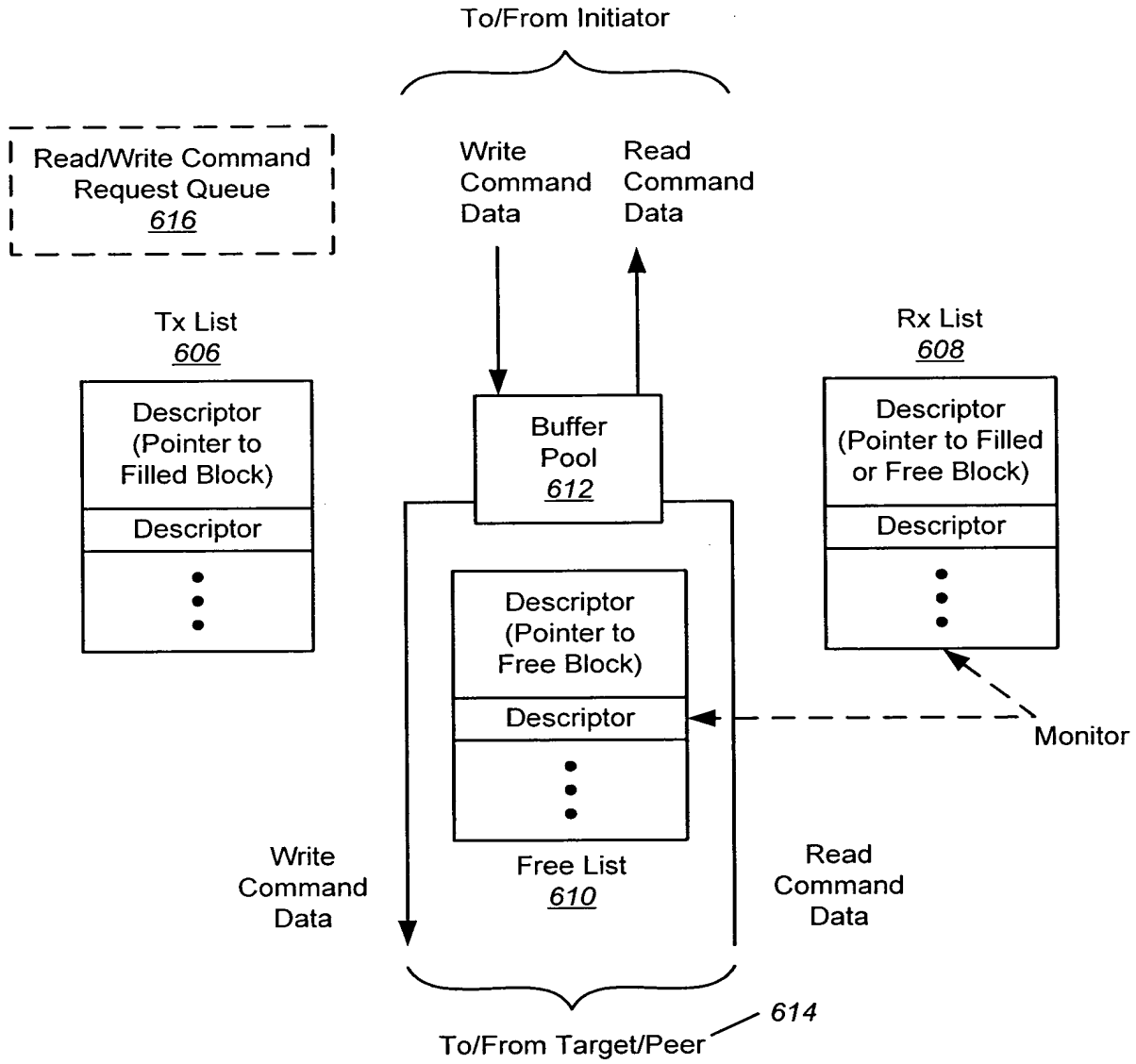
To/From Initiator
Read/Write Command Request Queue 616
Write Command Data
Read Command Data
Tx List 606
Descriptor (Pointer to Filled Block)
Descriptor
Buffer Pool 612
Rx List 608
Descriptor (Pointer to Filled or Free Block)
Descriptor
Descriptor (Pointer to Free Block)
Descriptor
Monitor
Write Command Data
Free List 610
Read Command Data
614
To/From Target/Peer

FIG. 6

7/9

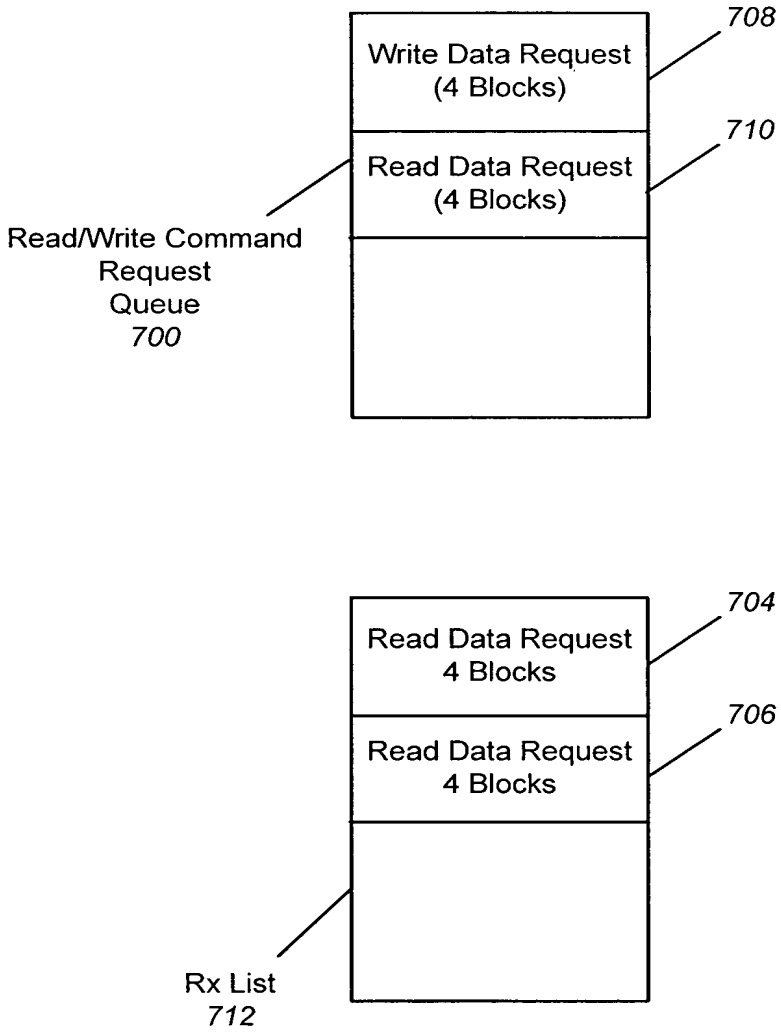
Write Data Request
(4 Blocks)
708
Read Data Request
(4 Blocks)
710
Read/Write Command
Request
Queue
700
Read Data Request
4 Blocks
704
Read Data Request
4 Blocks
706
Rx List
712

FIG. 7

8/9

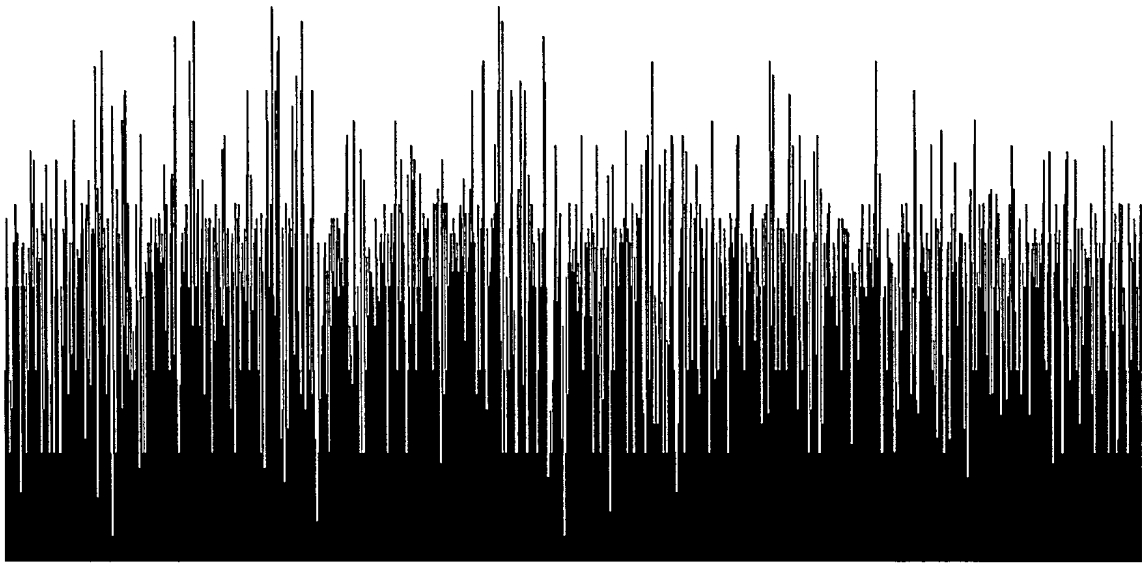

FIG. 8

9/9

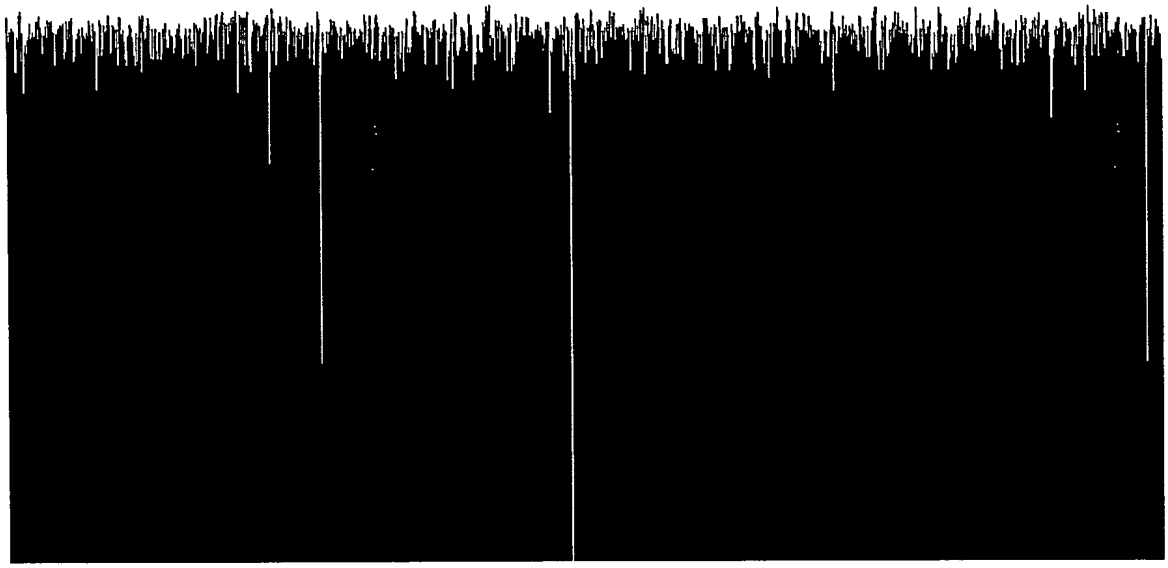

FIG. 9